

VLADIMIROV, V.G.; SHAROBATID, V.I.

Effect of acid extraction of nucleic acids on the extent of  
ultraviolet ray absorption by solutions of certain dyes.  
TSitolariia 5 no. 4/1964/1-3, 48 '63. (M 14 178)

1. Kafedra Lichhimii Voprosno-meditsinskoy akademii i labora-  
toriya khimii tselul'oznogo i keramicheskogo universiteta.

ACCESSION NR: AP4025117

S/0020/64/155/003/0683/0684

AUTHORS: Ivanov, I.I.; Borovikova, O.N.; Vladimirov, V.G.; Dolgo-Sa-  
burov, V.B.; Sharobayko, V.I.

TITLE: On the mechanism of reduction of the DNA level in body tissues  
exposed to ionizing radiation

SOURCE: AN SSR. Doklady\*, v.155, no.3, 1964, 683-684

TOPIC TAGS: nucleus DNA, DNA tissue level, X ray irradiation, lympho-  
cyte, spleen lymphocyte, DNA destruction, acridine orange stain, ultra  
violet green fluorescence, ultra violet red fluorescence

ABSTRACT: Earlier determination of DNA reduction in the cell nuclei  
of mammal tissues (ultra violet cytospectrometry) gave only an average  
DNA content in the cell, without taking account of its functional  
state. The authors contend that the observed reduction is due to the  
lower DNA content in cells which are dying or have died following  
irradiation. They studied difference in functional condition, as re-  
lated to DNA contents in spleen lymphocytes of 19 white rats one day  
before and after whole body X-ray irradiation with a 300 roentgen dose.

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ACCESSION NR: AP4025117

The ultra violet and other equipment are described. Staining with acridine-orange afforded cell differentiation according to the functional state, without impairing the reliability of quantitative DNA determination. Uninjured cells retained green fluorescence while that of the injured cells was red. The ultra violet technique of separate DNA determination in these cells is described. Nucleic acids were not isolated, since the small RNA content could be neglected in this case. DNA nucleus concentration in the cells with green fluorescence was almost the same for irradiated and non-irradiated lymphocytes ( $6.49 \cdot 10^{-12}$  and  $6.23 \cdot 10^{-12}$ g resp.) while that of cells with red fluorescence was considerably lower ( $1.81 \cdot 10^{-12}$ g). This points towards death with depolymerization and decomposition of the latter's DNA. Orig. art. has 1 table.

ASSOCIATION: Boenno-meditsinskaya akademiya im. S.M. Kirova (Military Medical Academy)

SUBMITTED: 11Sep63

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: OH, NS

NR REF SOV: 007

OTHER: 002

Card 2/2

DEZHNEV, I.YA.; GOSUDENISEV, D.A.; VLADIMIROV, V.A.

Effect of sulfur-containing radioprotectors on biochemical changes in the irradiated organism. Radiobiologiya 5 no.3: 415-422 '65. (MIRA 18:7)

1. Voenno-meditsinskaya akademiya imeni Kirova, Leningrad.

VLADIMIROV, V.G., Kani. ts. in. Khuk

Studying the dynamics of the load regulation system of a diesel engine with a variable-pitch propeller using an electronic model. (MIRA 1832)  
Sudostroenie no. 143-17 1965.

L 3662-66 EWA(j)/EWT(m)/EWA(b)-2 RM

ACCESSION NR: AP5015732

UR/0205/65/005/003/0415/0422  
628.58 : 577.391

AUTHOR: Dzharak'yan, T. K.; Golubentsev, D. A.; Vladimirov, V. G.

TITLE: Effect of sulfur-containing radioprotective substances on biochemical changes in the irradiated organism *H*

SOURCE: Radiobiologiya, v. 5, no. 3, 1965, 415-422

TOPIC TAGS: radioprotective agent, nucleic acids, cysteamine, adenosine triphosphoric acid, oxidative phosphorylation, ionizing radiation, spleen, thymus, intestine

ABSTRACT: The authors investigated the prophylactic effect of cysteamine and its disulfide (cystamine) on nucleic acid, ATP, and on the processes of oxidative phosphorylation in radiosensitive tissues of rats (spleen, thymus, small intestine) after exposure to ionizing radiation. Whole-body irradiation (600-750 r) resulted in rapid and severe disturbance of oxidative phosphorylation and of ATP, DNA, and RNA metabolism in the radiosensitive tissues. Administration of cysteamine or its disulfide (75-100 mg per kg of animal weight) did not wholly prevent such impairment,

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L 3662-66

ACCESSION NR: AP5015732

although the degree of impairment was less than when the radioprotective agents were not used. The magnitude of the level of DNA in individual small lymphocytes of the spleen determined by ultraviolet cytospectrophotometry showed that the protective effect of cystamine is exerted at the cell level in the intact organism. The prevention of injury in many radiosensitive cells by cysteamine and cystamine probably explains the fairly rapid regeneration of the hemopoietic tissues. Since the changes in oxidative phosphorylation parallel those in ATP and nucleic acid metabolism during radiation disease and since these changes are weakened by radioprotective compounds, a close connection must exist between the disruptions of the biochemical processes studied. Orig. art. has: 4 figures, 1 table.

ASSOCIATION: Voenno-meditsinskaya akademiya im. S. M. Kirova, Leningrad (Military Medical Academy)

SUBMITTED: 17Aug63

ENCL: 00

SUB CODE: LS

NO REF SOV: 035

OTHER: 018

*dek*  
Card 2/2

1. The first step in the process of the formation of the protein is the synthesis of the amino acids. The amino acids are synthesized from the precursors in the cytoplasm of the cell. The precursors are the products of the glycolysis and the citric acid cycle. The amino acids are then transported into the nucleus where they are used for the synthesis of the protein.

2. The second step in the process of the formation of the protein is the synthesis of the ribosomes. The ribosomes are synthesized in the nucleolus of the nucleus. The nucleolus is a dense region of the nucleus where the ribosomal RNA is synthesized and assembled with the ribosomal proteins.

3. The third step in the process of the formation of the protein is the synthesis of the messenger RNA. The messenger RNA is synthesized in the nucleus by the RNA polymerase II. The messenger RNA is then transported into the cytoplasm where it is used for the synthesis of the protein.

4. The fourth step in the process of the formation of the protein is the synthesis of the protein. The protein is synthesized in the cytoplasm by the ribosomes. The ribosomes are composed of two subunits, the large subunit and the small subunit. The large subunit contains the ribosomal RNA and the ribosomal proteins. The small subunit contains the ribosomal RNA and the ribosomal proteins. The protein is synthesized by the ribosomes using the messenger RNA as a template.

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L 41614-65

ASSOCIATION: none

ASSOCIATION: none

SUBMITTED: 19Aug64

ENCL: 00

SUB CODE: 00, 00

NO REF SOV: 003

OTHER: 014

Card 2/2

*VLADIMIROV V.G.*

KONDRASHOV, V.A., kand.tekhn.nauk; VLADIMIROV, V.G., inzh.

Regulating steam pressure in marine steam turbine packing systems.

Sudostroenie 23 no.12:27-32 D '57.

MIRA 11:2)

(Steam turbines)

(Governors (Steam engine)

VLADIMIROV, V.G., inzh.

Automatic control of marine gas turbine power plants. Sudostroenie 27  
no.3:62-64 Mr '61, (MIRA 14:3)  
(Marine gas turbines) (Automatic control)

KOSTYKOV, Yu.V.; YERMOLAYEV, L.N.; VLADIMIROV, V.G., podpolkovnik,  
redaktor ; LEVINSKAYA, N.Z., ~~tekhnicheskii~~ redaktor.

[Radio amateur's first book] Pervaya kniga radioliubitelia.  
Moskva, Voen.izd-vo Ministerstva oborony SSSR, 1955. 301 p.  
(Radio-- Amateurs' manuals) (MLRA 8:11)

VLADIMIROV, V., podpolkovnik

American fighters above West Germany. Av. i kosm. 47 no. 10:92-93  
C '64. (MIRA 17:10)

1. Obozrevatel' zhurnal'a "Aviatsiya i kosmonavtika".

VLADIMIROV, V.I.

Reproduction of *Vimba vimba carinata* (Pallas) in the Dnieper River following the construction of the Kakhovka Hydroelectric Power Station. Vop. ikht. 2 no.1:116-126 '62. (MIRA 15:3)

1. Institut gidrobiologii AN USSR, Kiev.  
(DNEPER RIVER--VIMBA)

VLADIMIROV, V.I., inzh.

Using acoustical disperser for preparing bituminous emulsions.  
Avt. dor. 26 no.6:8-9 Je '63. (MIRA 16:8)

(Bitumen) (Ultrasonic waves--Industrial applications)

GUREVICH, L.E.; VLADIMIROV, V.I.

Kinetic properties of a rarefied plasma with a high radiative pressure and the effects of mutual entrainment of electrons and photons. Zhur. eksp. i teor. fiz. 44 no.1:166-176 Ja '63. (MIRA 16:5)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR.  
(Plasma (Ionized gases)) (Electrons—Scattering)  
(Photons—Scattering)



VLADIMIROV, V.I.

Theory of the coagulation of surplus vacancies during the  
cooling of solids. Fiz. tver. tela 2 no.1:157-167 Jan '60.  
(MIRA 14:9)

1. Leningradskiy fiziko-tekhnicheskii institut AN SSSR.  
(Crystals--Defects)

**"APPROVED FOR RELEASE: 03/14/2001**

**CIA-RDP86-00513R001860210020-1**

**APPROVED FOR RELEASE: 03/14/2001**

**CIA-RDP86-00513R001860210020-1"**

GUREVICH, L.E.; VLADIMIROV, V.I.

Kinetic theory of strength. Fiz. tver. tela 2 no.8:1783-1792 Ag  
'60. (MIRA 13:8)

1. Fiziko-tekhnicheskiy institut AN SSSR, Leningrad.  
(Strength of materials)

VLADIMIROV, V.I.; SHABADASH, A.N.; KANDZAS, P.P.; MISHINA, A.N.

Method for speeding up the polymerization of styrene in the  
manufacture of optical lenses. Plast.massy no.3:71-73 '60.  
(MIRA 13:6)

(Styrene) (Lenses)

82995  
S/181/60/002/008/014/045  
B006/B070

24.7500

AUTHORS:

Gurevich, L. E., Vladimirov, V. I.

TITLE:

The Kinetic Theory of Strength *no*

PERIODICAL:

Fizika tverdogo tela, 1960, Vol. 2, No. 8, pp. 1783-1792

TEXT: In order to explain the dependence of the time of rupture on the stress applied to a solid body, S. N. Zhurkov and others (Refs. 1-4) developed a theory according to which the state under load is already a non-equilibrium state and the rupture process begins before the critical stress is reached, and proceeds with a finite rate. Rupture is always accompanied with plastic deformation which takes place both before and during the fissure formation. The authors of the present paper have now developed a theory of the rupture process for solid bodies. The theory is based on the assumption that the fissures originate at the end of a slipping band in the layer between the grains. The results of the theory agree with those of Zhurkov. The fact that in a real crystal rupture occurs under a stress several orders of magnitude lower than the

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# The Kinetic Theory of Strength

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S/181/60/002/008/014/045  
B006/B070

value for solid bodies, is explained in different ways. The authors discuss here the hypothesis of Griffiths, the hypothesis of endurance, and the ideas based on the dislocation theory, and point some flaws in them. The energetic problem of fissure formation is discussed according to a theoretical consideration of the stress concentrations in the intermediate layers. The following conclusions are obtained: (1) For

$\sigma < \sigma_0 \left(\frac{a}{d}\right)^{3/4}$ , fissure formation is energetically unfavorable and so does not occur. (2) For  $\sigma_0 \left(\frac{a}{d}\right)^{3/4} < \sigma < \sigma_0 \left(\frac{a}{d}\right)^{1/2}$ , stress at the edge of the fissure  $\sigma'_n = \sigma \sqrt{d/a}$ ;  $\sigma_0 \sqrt{a/d} < \sigma'_n < \sigma_0$  is smaller than the critical stress and the rupture process proceeds with a velocity that is small compared to the velocity of sound. (3) For  $\sigma > \sigma_0 \sqrt{a/d}$  the stress at the edges of the fissures is larger than the critical stress and the fissure will increase with a velocity of the order of the velocity of sound ( $a$  - lattice constant,  $d$  - polycrystalline grain dimension). A determination

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The Kinetic Theory of Strength

82995

S/181/60/002/008/014/045  
B006/B070

of the time required for the rupture of a sample leads to expression (15) which is the same as that obtained by Zhurkov. The authors thank S. N. Zhurkov, V. R. Regel', and A. N. Orlov for discussions. B. Ya. Pines and T. P. Sanfirova are mentioned. There are 5 figures and 15 references: 10 Soviet, 3 British, and 2 US.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR Leningrad  
(Institute of Physics and Technology of the AS USSR,  
Leningrad)

SUBMITTED: February 16, 1960

X

Card 3/3

S/181/60/002/01/30/035  
B008/B014

24.7500

AUTHOR: Vladimirov, V. I.

TITLE: Theory of the Coagulation of Excess Vacancies by Cooling  
of Solids<sup>1</sup>

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 157-167

TEXT: The present paper deals with problems connected with the coagulation of vacancies in a solid that is cooled. It was found that the coagulation of evenly distributed vacancies in thermal equilibrium led only to the formation of defects which were not larger than atoms. Under certain conditions, it is, however, possible that the coagulation of excess vacancies formed by cooling of the body causes macroscopic structural defects of  $\gg 10^3 a$  ( $a$  - lattice constant). It is shown that these defects are formed at a certain temperature if germs capable of growing appear in the sample. These germs are flat cavities compressed in the center (Fig. 1). These are called "petals". The author discusses problems of the equilibrium concentration of vacancies and "petals",

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Theory of the Coagulation of Excess  
Vacancies by Cooling of Solids

S/181/60/002/01/30/035  
B008/B014

their interaction cross section, conditions of the development and growth of "petals", their definite maximum and average size. The final part of the present paper gives an estimation of the size of the "petals" and of the influence exercised by the size of the samples upon the coagulation of vacancies. Next, the author studies the problem as to whether it is possible that vacancies appear on the surface of the body. A connection between vacancy and "petals" increases compression. However, the energy of the "petals" changes but slightly, so that the free energy of the system is reduced as soon as a connection has been established. All "petals" surrounded by the gas of the equilibrium vacancies are dissolved. The rate of this process is negligible at room temperature. The existence of "petals" in the body influences its elastic properties. It is further said that the theory holds for a perfect crystal without dislocations. Coagulation is impossible in the case of samples of a high density which cannot be quickly cooled. Recently, Hirsch has detected coagulation from vacancies to "petals" in thin samples (Ref. 7). His data on the number and size of "petals" agree with the estimation carried out by the author of this article. The theory described may be applied to the coagulation

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Theory of the Coagulation of Excess  
Vacancies by Cooling of Solids

S/181/60/002/01/30/035  
B008/B014

of single atoms to flat layers, which migrate on the surface of the crystal. This process has a critical temperature. The author thanks L. E. Gurevich for his assistance and for having suggested the subject. There are 2 figures and 7 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut AN SSSR  
(Leningrad Institute of Physics and Technology, AS USSR)

SUBMITTED: April 6, 1959

Card 3/3

4

LIKHACHEV, V.A.; VLADIMIROV, V.I.

Vacancy mechanisms of a temperature aftereffect. Fiz. met.  
i metalloved. 17 no.5:655-663 My '64. (MIRA 17:9)

1. Fiziko-tekhnicheskoy institut imeni Ioffe AN SSSR.

GUREVICH, L.E.; VLADIMIROV, V.I.

Kinetic properties of a plasma with high radiation pressure.  
Zhur. eksp. i teor. fiz. 47 no.1:300-310 J1 '64.

(MIRA 17:9)

1. Fiziko-tehnicheskiiy institut imeni Ioffe AN SSSR.



VLADIMIROV, V. I.

Vladimirov, V. I. "Stream trout of Armenia and their relation to other representatives of the Salmo family," *Trudy Sevanakoy gidrobiol. stantsii*, Vol. X, 1948, p. 87-178 - Resume in Armenian language - Bibliog: 52 items

SO: U-3264, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

KOSENKO, A.D.; ROLL, Ya.V., otvetstvennyy redaktor; MOVCHAN, V.A.,  
redaktor; ~~VLADIMIROV, V.L.~~, doktor biologicheskikh nauk,  
redaktor; TOVBIN, M.V., doktor khimicheskikh nauk, redaktor;  
KRAYUKHIN, B.V., kandidat biologicheskikh nauk, redaktor;  
FURS-FESENKO, N.S., redaktor; SIVACHENKO, Ye.K., tekhredaktor.

Hydrochemical characteristics of small rivers of the Ukrainian  
S.S.R. Trudy Inst. gidrobiol. AN USSR no.26:5-172 '52.  
(MIRA 8:2)

1. Chlen-korrespondent Akademii nauk USSR (for Roll and  
Movchan).  
(Ukraine--Rivers)(Water--Composition)

VLADIMIROV, V.I.

Basic progress in Soviet ichthyology and its problems. Trudy Inst.  
gidrobiol.AN URSS no.27:3-14 '52. (MLBA 9:8)  
(Ichthyology)



MARKOVSKIY, Yu.M.; ROLL, Ya.V., redaktor; MOVCHAN, V.A., redaktor;  
VLADIMIROV, V.I., doktor biol. nauk, redaktor; ALMAZOV, A.M.,  
kandidat khim. nauk, redaktor; KRAYUKHIN, B.V., kandidat biol.  
nauk, redaktor; GRUDZINSKAYA, O.S., redaktor; SIVACHENKO, Ye.K.,  
tekhnicheskii redaktor.

[Invertebrate fauna of lower parts of Ukrainian rivers, conditions  
under which they exist, and ways of utilizing them] Fauna bespozvo-  
nochnykh nizov'ev rek USSR, usloviia ee sushchestvovaniia i puti  
ispol'szovaniia. Pt 1. [Water bodies of the Dniester Delta and the  
Dniester estuary] Vodoemy del'ty Dnestra i Dnestrovskii liman.  
Kiev, Izd-vo Akademii nauk USSR, 1953. 194 p. (MIRA 8:2)  
(Dnieper River--Invertebrates) (Bug River--Invertebrates)  
(Dniester Delta--Invertebrates)

VLADIMIROV, V.I.

Conditions of fish propagation in the lower Dnieper and a prognosis concerning the reproduction of their stocks in connection with the construction of the Kakhovka hydro development. Trudy Inst. gidrobiol. AN URSS no.31:121-153 '53. (MLRA 7:8)  
(Dnieper River--Fishes) (Fishes--Dnieper River)

TOVBIN, M.V.; ALMAZOV, A.M.; FEL'DMAN, M.B.; MAYSTRENKO, Yu.G.; ROLL, Ya.V., redaktor; MOVCHAN, V.A., redaktor; VLADIMIROV, V.I., redaktor biologicheskikh nauk, redaktor; KRYUKHIN, B.V., kandidat biologicheskikh nauk, redaktor; ALMAZOV, kandidat khimicheskikh nauk, redaktor; ZEROV, K.K., kandidat biologicheskikh nauk, redaktor.

[Hydrochemical characteristics of the lower reaches of the Dnieper and Ingulets Rivers and a prognosis of conditions of Kakhovka Reservoir] Gidrokhimicheskaya kharakteristika nizov'ev rek Dnepra i Ingul'tsa i prognos reshima Kakhovskogo vodokhranilishcha. Kiev, Izd-vo Akademii nauk Ukrainskoi SSR, 1954. 103 p. (Akademiia nauk URSS, Kiev. Instytut hidrobiologii, Trudy, no.30). (MLRA 9:5)

1. Chlen-korrespondent AN USSR (for Roll, Movchan)  
(Dnieper River) (Ingulets River) (Kakhovka Reservoir)

MARKOVSKIY, Yu.M.; ROLL, Ya.V., redaktor; MOVCHAN, V.A., redaktor;  
VLADIMIROV, V.I., doktor biol. nauk, redaktor; ALMAZOV, A.M.,  
kandidat khim. nauk, redaktor; KRAYUKHIN, B.V., kandidat biol.  
nauk, redaktor; GRUDZINSKAYA, O.S., redaktor; SIVACHENKO, Ye.K.,  
tekhnicheskii redaktor.

[Invertebrate fauna of lower reaches of Ukrainian rivers, conditions  
under which they exist, and ways of utilizing them] Fauna bespozvo-  
nochnykh nizov'ev red USSR, uslovia ee sushchestvovaniia i puti ispol'-  
zovaniia. Pt. 2. [Dnieper-Bug estuary] Dneprovsko-Bugskii liman.  
Kiev, Izd-vo Akademii nauk USSR. 1954. 205 p. [Microfilm] (MIRA 8:2)  
(Dnieper River--Invertebrates) (Bug River--Invertebrates)

VLADIMIROV, V.I.

Species and formation of species among animals. Zool. zhur. 33 no.4:  
755-768 J1-Ag '54. (MLRA 7:8)

(Origin of species)

SUKHOYVAN, P.G.; VLADIMIROV, V.I., doktor biologicheskikh nauk, otvetstvennyy redaktor; SENGCHENKO, O.S., redaktor izdatel'stva; ZHUKOVSKIY, A.D., tekhnicheskii redaktor

[The biology, taking, and supply of the Dnieper sea roach] Dneprovskaya taran'; biologiya, ulovy i sostoianie zapasov. Kiev, Izd-vo Akademii nauk USSR, 1956. 129 p. (MLRA 10:2)  
(Roach (Fish))

VLADIMIROV, V.I.

Biological classification of fishes in migratory and partially  
migratory groups [with summary in English]. Zool.zhur. 35  
no.8:1121-1126 Ag '57. (MLRA 10:9)

1. Institut gidrobiologii Akademii nauk USSR.  
(Fishes--Migration)

VLADIMIROV, V.I.

"Materials on the development of clupeoid fishes" by S.G.Kryzhanovskii.  
Reviewed by V.I.Vladimirov. Zool.zhur.36 no.10:1584-1587 0 '57.  
(MIRA 10:11)

(Herring) (Kryzhanovskii, S.G.)



LYASHENKO, Aleksandr Fedorovich [Liashenko, O.F.]; VLADIMIROV, V.I., doktor  
biolog.nauk, red.; BRAGINS'KIY, L.P., red.; SKLYAROVA, V. Ye.,  
[Skli'arova, V.IE.], tekhn.red.

[Biology of the young commercial varieties of fish in the Lower  
Dnieper and the Dnieper-Bug estuary] Biologiya molodi promyslovykh  
vydiv ryb nyzhn'oho Dnipra i Dniprovs'ko-Buz'koho lymanu. Kyiv,  
Vyd-vo Akad.nauk URSS, 1958. 114 p. (MIRA 12:2)  
(Dnieper River--Fishes)

SEMENOV, Konstantin Ivanovich; VLADIMIROV, V.I., prof., doktor biolog.  
nauk, otv.red.; SENCHENKO, O.S., red.izd-va; MATVIYCHUK, O.O.,  
tekhn.red.

[Morphological and biological features of the development of  
sturgeon larvae under different conditions of existence]  
Morfologichni i biologichni osoblyvosti rozvytku lychynok  
osetra v riznykh umovakh isnuvannia. Kyiv, Vyd-vo Akad.nauk  
URS, 1958. 124 p. (MIRA 12:8)  
(Sturgeons) (Larvae--Fishes)

BUGAY, Klim Semenovich [Buhai, K.S.]; VLADIMIROV, V.I., doktor biolog.  
nauk, otv.red.; BRAGINSKIY, L.P. [Brankins'kiy, L.P.] red.iad-va;  
YEFIMOVA, M.I. [Efimova, M.I.], tekhn.red.

[Pelecus cultratus L. of the Dnieper River; biometry, biology,  
fisheries] Dniprovs'ka chekhonia; biometryka, biologiya,  
promysel. Kyiv, Vyd-vo Akad.nauk URSR, 1959. 127 p. (MIRA 12:8)  
(Dnieper River--Carp)

VLADIMIROV, V.I.

Development of gonadal products of the herring in the Dnieper River following regulation of its streamflow by the Kakhovka Hydroelectric Power Station. Zool.zhur. 38 no.10:1573-1582 (MIRA 13:2)  
0 '59.

1. Institute of Hydrobiology, Academy of Sciences of the Ukrainian S.S.R., Kiev.  
(Dnieper River--Herring)

17. (4)

AUTHORS:

Vladimirov, V. I., Semenov, K. I.

SOV/20-126-3-57/69

TITLE:

The Critical Period in the Development of Fish Larvae  
(Kriticheskiy period v razvitii lichinok ryb)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 663 - 666  
(USSR)

ABSTRACT:

The period mentioned in the title begins for fish larvae at the moment of transition to outside nourishment as long as yolk rests are still present. Mortality is rather high at that time. Up to now it has been asserted that this mortality is due to the lack of suitable edible organisms. The authors, however, have proved that the very high mortality during the critical period (which, by the way, only lasts a few days) is principally due to the death of larvae with various defects of constitution. At this critical moment of organogenesis when the most important organic systems take charge of their final functions, the defects which had originated during the development of the egg are "realized". In investigating the reasons for the changes in the number of fish, great attention must be paid to the conditions of development of oöcytes, ovulation and embryonal development. The lack of suitable nourish-

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The Critical Period in the Development of Fish Larvae SOV/20-126-3-57/69

ment is often the main cause for the death of many larvae during their next stage of development, i.e. when they have fully passed over to outside nourishment (Ref 1). There are 2 tables and 16 references, 12 of which are Soviet.

ASSOCIATION: Institut gidrobiologii Akademii nauk USSR (Institute of Hydrobiology of the Academy of Sciences of the UkrSSR)

PRESENTED: February 26, 1959, by Ye. N. Pavlovskiy, Academician

SUBMITTED: February 2, 1959

Card 2/2

VLADIMIROV, V.I.

Role of predaceous invertebrates in the population dynamics of  
migratory fishes. Vop. ikht. no.16:56-66 '60. (MIRA 14:4)

1. Institut gidrobiologii Akademii nauk USSR.  
(Fishes---Diseases and pests) (Hydrozoa) (Copepoda)

TOPACHEVSKIY, O.V. [Topachevs'kyi, O.V.], glav. red.; MOVCHAN, V.A.,  
red.; ALMAZOV, O.M., doktor geol. nauk, red.;  
VLADIMIROV, V.I. [Vladymyrov, V.I.], doktor biol. nauk, red.;  
VINogradov, K.O. [Vynohradov, K.O.], doktor biol. nauk, red.;  
TSEYES, Ya.Ya. [TSeeb, IA.IA.], doktor biol. nauk, red.;  
SAL'NIKOV, M.Ye. [Sal'nykov, M.IE.], kand. biol. nauk, red.;  
ZEROV, K.K., kand. biol. nauk, red.

[Desna River within the boundaries of the Ukraine; sanitary-  
hydrobiological and hydrochemical characteristics] Desna v  
mezkhakh Ukrainy; sanitarno-hidrobiologichna ta hidrokhimichna  
kharakterystyka. Kyiv, Vyd-vo "Naukova dumka," 1964. 158 p.  
(MIRA 17:7)

1. Akademiya nauk URSR. Kiev. Instytut hydrobiologii. 2. Chlen-  
korrespondent AN Ukr.SSR (for Topachevskiy). 3. Vsesoyuznaya  
akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina i  
chlen-korrespondent AN Ukr.SSR (for Movchan).



ACCESSION NR: AP4042403

S/0056/64/047/001/0300/0310

AUTHOR: Gurevich, L. E.; Vladimirov, V. I.

TITLE: Kinetic properties of a plasma with high radiation pressure

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 1, 1964, 300-310

TOPIC TAGS: plasma electric conductivity, plasma thermal conductivity, electron ion scattering, mutual drag effect

ABSTRACT: The kinetic coefficients (electric and thermal conductivity tensors) of a plasma in a magnetic field have been investigated for the case in which electrons are scattered by ions and relaxation of photons is due to Compton scattering by electrons or due to absorption by electrons during collision with ions. The investigation shows that the "photon wind" may produce a strong electron drag effect highly influencing the thermal electromotive force. It also shows that scattering of photons by electrons which they drag along (mutual drag effect) also significantly influences the kinetic properties of plasma by changing its transverse thermal conductivity.

Card 1/2

ACCESSION NR: AP4042403

Finally, the investigation shows that the perturbation theory for the probability of radiative processes in the presence of an external radiation field, as it is in this case, does not lead to a logarithmic infrared divergence and, therefore, the familiar methods for removing infrared divergence must be modified if an external radiation field is present. Orig. art. has: 25 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences, USSR)

SUBMITTED: 29Jan64

ATD PRESS: 3075

ENCL: 00

SUB CODE: ME, NP

NO REF SOV: 001

OTHER: 002

Card 2/2

LIKHACHEV, V.A.; VLADIMIROV, V.I.

Role of hardening in creep and the temperature aftereffect. Fiz  
met. i metalloved. 19 no.1:3-13 Ja '65. (MIRA 13:4)

1. Fiziko-tekhnicheskii institut imeni A.F.Ioffe AN SSSR, Leningrad.

L 33169-05 EPA(w)-2/ENT(1)/EEC(t)/EPA(sp)-2/T/EWA(m)-2 P1-4/Po-4/Pz-6/Pab-10  
TJP(c) AI

pasma in wh. of th. rad. 111

**"APPROVED FOR RELEASE: 03/14/2001**

**CIA-RDP86-00513R001860210020-1**

**APPROVED FOR RELEASE: 03/14/2001**

**CIA-RDP86-00513R001860210020-1"**

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210020-1

COTECNICAL INSTITUTE, AN 888H

SUBMITTED: 18Apr64

ENCL: 00

SUB CODE: ME, NP

RE REF SOV: 002

OTHER: 003

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860210020-1"

I. 43025-66 FBD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(j)/T/EWP(t)/ETI/EWP(k)  
 ACC NR: AP6030009 IJP(c) WG/JD/WW/JW/ SOURCE CODE UR/0020/66/169/005/1041/1043 77  
 JG/RM/WH 76  
 AUTHOR: Ashkinadze, B. M.; Vladimirov, V. I.; Likhachev, V. A.; Ryvkin, S. M.;  
 Salmanov, V. M.; Yaroshetskiy, I. D.; Konstantinov, B. P. (Academician) B  
 ORG: Physicotechnical Institute im. I. F. Ioffe, Academy of Sciences SSSR (Fiziko-  
 tekhnicheskii institut Akademii nauk SSSR)  
 TITLE: Laser induced damage in transparent dielectrics  
 SOURCE: AN SSSR. Doklady, v. 169, no. 5, 1966, 1041-1043  
 TOPIC TAGS: laser induced damage, material damage, glass, dielectric, alkali halide,  
 crystal  
 ABSTRACT: Damage induced by standard and giant-pulse lasers in a broad class of  
 materials (alkali halide single crystals, polymers, glasses) was investigated  
 experimentally. Plane cracks were observed in poly(methyl methacrylate) (PMMA) under  
 standard-pulse radiation at a 45° angle with respect to the laser beam axis and at  
 random with respect to the crack rotation plane around the same axis. A large  
 number of isolated cracks was observed at superthreshold energies. A 20-j beam  
 focused at f = 6 cm caused tail-end damage in glasses. The same pulse caused total  
 destruction along the cleavage planes in alkali-halide crystals at energies slightly  
 above threshold. In each instance, damage was observed when a giant-pulse beam was  
 focused on the inside of specimens. In single crystals the damage occurred along  
 Card 1/2  
 HDC: 535.89.537.226.004.74

L 43025-66

ACC NR: AP6030009

all three cleavage planes; in the case of PMK it had the form of an extended cone consisting of small individual cracks (of the order of 0.1—0.5 mm); in glasses, filiform damage appeared sharply with the thickening at the focus. To explain the damage mechanism and kinetics, the effects of pulse energy, focus position, temperature, and the focal length on the nature and extent of the damaged region were investigated. The experimental data indicate a strong dependence of the nature and extent of damage on the test material and the operating (peak or total energy) conditions. The damage in each spot occurred independently and was caused by beams of a small critical density. The most probable damage mechanism is thought to be the coherent hypersonic phonons generated as the result of stimulated Brillouin scattering. The thermal explosion accompanying damage due to hypersonic phonons in the case of strong optical absorption is suggested as a secondary mechanism. The experiments showed that the thermal explosion occurred basically near the focus and that its role varied with materials and energy density. Crack formation occurred during a period not exceeding the pulse duration (for giant pulse laser  $10^{-9}$  sec), the damage taking place first at the focus and traveling backwards. Damage induced by powerful laser beams can be used as a method of comparing the bulk and surface strength of a material. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 24 NOV 65/ ORIG REF: 002/ OTH REF: 002/ AID PRESS: 5065 [YK]

Card 2/2



L 32634-66

FBD/EWT(1)/ENP(e)/EWI(m)/EEC(k)-2/T/EWP(k) IJP(c) WG/WH

ACC NR: AF6018797

SOURCE CODE: UR/0056/66/050/005/1187/1201

AUTHOR: Ashkinadze, B. M.; Vladimirov, V. I.; Likhachev, V. A.; Ryvkin, S. M.;  
Salmanov, V. M.; Yaroshetskiy, I. D.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences SSSR (Fiziko-  
tekhnicheskii institut Akademii nauk SSSR)

TITLE: Breakdown of transparent dielectrics by intense laser radiation

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1966, 1187-1201

TOPIC TAGS: dielectric breakdown, laser effect, laser radiation, phonon interaction

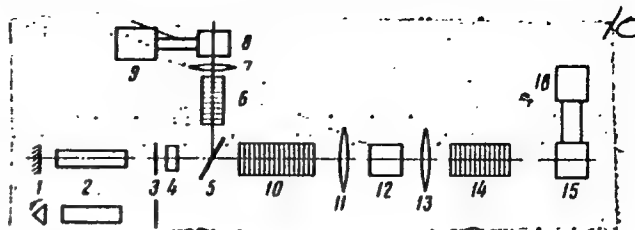
ABSTRACT: The transparent dielectrics investigated were alkali-halide single crystals (LiF, NaCl, CsI, KBr, KI, and others), polymers (polymethyl methacrylate and polystyrene), and glasses (K3 silicate glass and fused quartz). Ruby and neodymium lasers generating 1.79 and 1.17 eV photons, respectively, were used at first, but when it was found that the breakdown was qualitatively the same for polarized (ruby) and unpolarized (neodymium) radiation, only the latter was used, since it could operate in both the ordinary (20 J) and giant-pulse (2 J) modes. The diagram of the experiment is given in Fig. 1. The samples were parallelepipeds with polished faces of varying lengths and cross sections. The character of the breakdown was examined under a microscope and its size measured with a horizontal comparator. The laser-induced breakdown begins in locations exposed to high light-flux intensity and spreads to lower-intensity regions. In the case of focused beams, no destruction occurs behind the focal point. The breakdown occurs in very short time intervals, shorter than

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L 32634-66

ACC NR: AP6018797

Fig. 1. Diagram of experiment. 1 - Totally reflecting mirror or rotating prism, 2 - ruby or neodymium rod, 3 - partially reflecting mirror or plane-parallel plate, 4 - light filter, 5 - plane parallel-plate, 6,10,14 - neutral filters, 12 - tested sample, 7,11,13 - lenses, 8,15 - photodiodes, 9,16 - oscilloscopes.



the length of the light pulse, and develops independently at various points of the solid. Estimates of stresses caused by the hypersonic wave due to the laser beam indicate that local effects play a substantial role in the breakdown process. In the case of an ordinary laser pulse, the breakdown mechanism is governed by the peak power, whereas in the case of a giant pulse the decisive factor is the total energy. The cause of the breakdown is shown to be connected with the action of coherent acoustic phonons generated in the course of a stimulated Brillouin scattering, thermal effects being secondary. Study of the breakdown makes possible comparison of volume and surface strengths of the material and can be used to evaluate the time of phonon coherence loss, which is found to be of the order of 6  $\mu$ sec for polymethyl methacrylate. The authors thank B. P. Konstantinov for continuous interest and valuable discussions, and A. M. Prokhorov, P. P. Pashinin, A. V. Prokhideyev, I. N. Filimonova, G. V. Vladimirova, G. M. Malyshev, F. F. Vitman, V. P. Pukh, and G. A. Malygin for help with the experiments and for discussions. Orig. art. has: 10 figures and 11 formulas. 18/ [02]

Card 2/2 SUB CODE: 20/ SUBM DATE: 30Nov56/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS: 3074

L 2504-66 EWT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5014610

UR/0181/65/007/006/1900/1902

AUTHOR: Vladimirov, V. I. 44.65

TITLE: On the question of the local work function

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1900-1902

TOPIC TAGS: electron emission, thermionic emission, field emission, work function

ABSTRACT: The author considers the case when an emitter with given work function is deposited on a substrate with a larger work function. If the emitter does not cover the entire substrate, but is deposited in the form of spots, the electron emission consists of three compounds, one coming from the emitter proper, the other from the substrate proper, and the third interacting simultaneously with the atoms of the substrate and the emitter. A quantum-mechanical analysis, in which the electrons are represented by superpositions of plane waves (wave packets) and interact only with those atoms of the metal near which the electron wave functions differ from zero, shows that if the transverse dimensions of the wave packets are smaller than either the emitter spots or the substrate spots, then the electrons of the third group predominate and thermionic emission can be regarded as coming from a homogeneous surface whose work function is averaged over the area. It is

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L 2504-66

ACCESSION NR: AP5014610

6  
concluded that the ordinary thermionic emission theory is valid if the emitter spots consist of not less than several hundred atoms. In the case of field emission and photoelectronic emission, the spots should contain several dozen atoms in order for ordinary theory to be applicable. "The author thanks L. N. Dobretsov for suggesting the problem and for a discussion of the results." Orig. art. has: 4<sup>5</sup> formulas and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad  
(Physicotechnical Institute AN SSSR) 44,55

SUBMITTED: 12Mar64

ENCL: 00

SUB CODE: SS, CP

NO REF SOV: 000

OTHER: 003

Card 2/2

L 62510-65 EWT(1)/EPF(n)-2/ENG(m)/EPA(w)-2 LJP(c) AT

ACCESSION NR: AP5006748

S/0056/65/048/003/0870/0900 42

AUTHOR: Gurevich, L. E.; Vladimirov, V. I.

TITLE: Behavior of a plasma with high radiation pressure in a strong electric field 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 3, 1965, 890-900

TOPIC TAGS: plasma physics, thermal stability, electric field, acoustic field, plasma heating

ABSTRACT: Electric heating of a totally ionized plasma is considered under the assumption that photon heat is greater than the electron heat. Radiation thermal conductivity produces a steady state in the system. The part played by radiation thermal conductivity is studied by introducing the characteristic cooling time of the electron system. It was found that Compton scattering processes are significant in a sufficiently rarefied plasma. In the case of a steady state, the photon distribution is a Bose-Einstein distribution, instead of a Planck distribution and the chemical potential differs from zero. At high temperatures, this distribution function is approximated by the Maxwell-

Card 1/3



L 62510-65

ACCESSION NR: AP5008748

SUBMITTED: 06Aug64

ENCL: 00

SUB CODE: ME, EM

NO REF SOV: 007

OTHER: 001

ATD PRESS: 4072

Card 3/3

11-11-1965 20:11:00 001860210020-1

11-11-1965 20:11:00 001860210020-1

AUTHOR: Likhachev, V. A.; Vladimirov, V. I.

TITLE: The role of hardening in the temperature aftereffect

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 1, 1965, 3-13

TOPIC TAGS: creep, strain hardening, weakening, temperature aftereffect, activation energy, plastic deformation, yield stress, steady creep, temperature cycle

ABSTRACT: This study deals with the kinetics of the creep process, taking strain hardening and weakening into account. A closed system of equations has made it possible to define the laws governing both the speed of creep and the temperature aftereffect. The activation energy of the creep, as measured by Debye, is high.

that different mechanisms of activation energy participate in the process. The role of various factors (stress, duration of the cycle, temperature changing intervals, etc.) in the magnitude of the temperature aftereffect has been ascertained. The aftereffect of the creep process may not be characterized by a

6011 112



L 30121-65

ACCESSION NR: AP5004260

conventional physical aspect. The magnitude of that energy depends on the method by which it is determined. The well-known Dorn method is not superior to the ordinary method; in a number of cases, it makes the definition of the physical content of the activation energy even more difficult. Orig. art. has: 32 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut imeni A. F. Ioffe (Physics and Engineering Institute)

SUBMITTED: 21 Apr 64

NO REF SOV: 005

OTHER 005

Card 2/2

VLADIMIROV, V.I.

Reproduction of herring and sturgeons under conditions of  
a regulated streamflow. Trudy sov. Ikht. kom. no.13:277-  
282 '61. (MIRA 14:8)

1. Institut gidrobiologii AN USSR.  
(Dnieper River—Herring)  
(Dnieper River—Sturgeons)

VLADIMIROV, V.I.

A new (estuarine) form of shad of the Dnieper River and some problems in the taxonomy of shads of the Black Sea and the Sea of Azov. Zool. zhur. 40 no.4:547-555 Ap '61. (MIRA 14:3)

1. Institute of Hydrobiology, Academy of Sciences of the Ukrainian S.S.R. (Kiyev).  
(Black Sea—Shad) (Azov, Sea of—Shad)

YEMCHENKO, A.I. , otv. red.; TOPACHEVSKIY, O.V.  
[Topachevs'kyi, O.V.], doktor biol. nauk, glav. red.;  
ROLL, Ya.V., red.[deceased]; MOVCHAN, V.A., red.;  
VLADIMIROV, V.I.[Vladymyrov, V.I.], doktor biol. nauk,  
red.; VINOGRADOV, K.O.[Vynohradov, K.O.], doktor biol.  
nauk, red.; TSEYEB, Ya.Ya. doktor biol. nauk, red.;  
SAL'NIKOV, M.Ye [Sal'nykov, M.IE.], kand. biol. nauk,  
red.; ALMAZOV, O.M., kand. khim. nauk, red.; ZEROV, K.K.,  
kand. biol. nauk, red.

[Some problems of the physiology of digestion and  
metabolism in fishes] Deiaki pytannia fiziologii tav-  
lennia ta obminu rechovyn u ryb. Kyiv, Vyd-vo AN URSR,  
1962. 115 p. (Its Pratsi) (MIRA 17:11)

1. Chlen-korrespondent AN Ukr.SSR (for Yemchenko, Roll,  
Movchan).

~~VLADIMIROV, Vladimir Ivanovich; SUKHOYVAN, Pavel Grigor'yevich; BUGAY,~~  
Klim Semenovich; NEMCHENKO, Ye.M., red.izd-va; MATVIYCHUK,  
A.A., tekhn. red.

[Reproduction of fishes in regulated rivers as exemplified  
by the Dnieper River] Razmnozhenie ryb v usloviakh zaregu-  
lirovannogo stoka reki (na primere Dnepra). Kiev, Izd-vo AN  
USSR, 1963. 393 p. (MIRA 16:8)  
(Dnieper River—Fisheries)

VLADIMIROV, V. I.

Dissertation defended at the Zoological Institute for the academic degree of Candidate of Biological Sciences:

"Posthodiplostomum cuticola (Nordmann--1932, Dubois--1936). Morphology and Biology of Early Developmental Phases."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

VLADIMIROV, V.I., prof., red.; KUZNETSOVA, A.S., red.

[Effect of the quality of spawners on the offspring in fish] Vliianie kachestva proizvoditelei na potomstvo u ryb. Kiev, Naukova dumka, 1965. 141 p. (MIRA 18:5)

1. Akademiya nauk URSR, Kiev. Instytut hidrobiologii.

ACC NR: AR7002211 (AM) SOURCE CODE: UR/0271/66/000/010/A015/A015

AUTHOR: Vladimirov, V. L.

TITLE: Specific features of ferroelectric crystal voltage resonance in nonlinear electric circuits

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 10A108

REF SOURCE: Sb. Elementy sistem otbora i peredachi inform. Kiyev, Nauk dumka, 1965, 11-120

TOPIC TAGS: ferroelectric crystal, nonlinear equation, ferroelectric crystal resonance, varicond, *electronic circuit*

ABSTRACT: On the basis of the calculation of the first harmonics, the operation of a nonlinear series, resonant circuit containing a varicond is analyzed for the case of variable supply voltage frequencies and amplitudes. Varicond characteristics are approximated by an equation containing at least two nonlinear components. The possibility that in this case two resonant points may occur along the fundamental frequency of the supply voltage, instead of one (as in the case of

UDC: 621.398.694

Card 1/2



ACC NR. AR7002211

ferroresonance), is discussed. It is shown that at low voltages, the circuit's resonance curves are similar to those of a varicap circuit, while at high voltages, they are similar to those of a ferroresonance circuit. At certain mean voltages, the resonance curves of the investigated circuit possess the special features of both the varicap and the ferroresonance circuit. Five illustrations and a bibliography of 5 titles are included. [Translation of abstract] [DW]

SUB CODE: 09/

Card 2/2

BULYGINSKAYA, M.A.; VLADIMIROV, V.L.; MARKOV, G.S.

Helminths from gerbils of Uzbekistan, the description of a new  
genus of filariae and changes with age and season observed in helminths  
of the greater gerbil. Trudy Gel'm. lab. 9:54-58 '59.  
(MIRA 13:3)

(Kashka-Dar'Ya Province--Nematoda)  
(Parasites--Gerbils)

VLADIMIROV, V.L.

Morphology and development of the eggs of *Posthodiplostomum cuticola* (Nordmann, 1832) Dubois, 1936, causative agent of the black-spot disease of fishes. Dokl. AN SSSR 140 no.5:1226-1228 O '61. (MIRA 15:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva. Predstavleno akademikom Ye.N. Pavlovskim.

(Trematoda)  
(Worms--Eggs)

ABSTRACT: 13500:431

AUTHOR: Vladimirov, V. L.

TITLE: Variational characteristics and properties of the function  $f(x)$ .

TRANSLATION: The ascending branch of a variational current-voltage characteristic is situated under the descending branch at voltages lower than  $U_{max}$ ; it is located

over the descending branch at voltages higher than  $U_{max}$ .

1. The ascending branch of a variational current-voltage characteristic is situated under the descending branch at voltages lower than  $U_{max}$ ; it is located over the descending branch at voltages higher than  $U_{max}$ .

ADDITIONAL NR: AR5004134

Initial static curve and the initial curve after the steady-state curve. At  
the end of the dynamic curve, the initial curve and the static curve  
are shown. The initial curve is shown in the first part of the curve and  
the static curve is shown in the second part of the curve.

END OF PAGE

VLADIMIROV, V.L.

Morphology and biology of the cercaria of *Posthodiplostomum cuticola* (Nordmann, 1832) Dubois, 1936, producer of the black spot disease in fishes. Dokl. AN SSSR 135 no.4:1009-1011 '60. (MIRA 13:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva. Predstavleno akademikom Ye.N. Pavlovskim.

(Volga Delta--Trematoda) (Parasites--Fishes) (Larvae--Worms)

VLADIMIROV, V.M.

RODIONOV, G.V., kandidat tekhnicheskikh nauk; FEDULOV, A.I., kandidat  
tekhnicheskikh nauk; VLADIMIROV, V.M., inzhener; GURKOV, K.S.,  
inzhener

Development of a specialized excavator for digging trenches with  
sloping sides. Mekh. stroi. 12 no.6:9-13 Je '55.  
(Excavating machinery) (MLRA 8:6)

FEDULOV, A.I., kandidat tekhnicheskikh nauk; VLADIMIROV, V.M., inzhener.

On increasing the productivity of multibucket trench excavators  
having inclined bucket ladder. Stroi. i dor. mashinostr. 1 no.3:10-  
11 Mr '56. (MIRA 10:1)

(Excavating machinery)



VLADIMIROV, V. M.: Master Tech Sci (dias) -- "Investigation of the process of working soil by caving-in". Moscow, 1957. 19 pp (Min Transport-Machine Building), 110 copies (KL, No 12, 1959, 128)

VLADIMIROV, V.M. inzhener.

Collapse method in soil excavation. Stroi. i dor. mashinostr. 2  
no.6:7-10 Je '57. (MLRA 10:6)

(Excavation)

SOV/98-59-8-12/33

3(5), 30(1)

AUTHORS: Vladimirov, V.M., Engineer, and Gurkov, K.S., Engineer

TITLE: An Instrument for Determining the Cohesion of Earth Under Field Conditions

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 8, pp 47-48 (USSR)

ABSTRACT: This short article describes tests carried out by the authors in the laboratory for the mechanization of mining of the West Siberian branch of the Academy of Sciences of the USSR. The experiments were intended to determine the cohesion of earth by means of an apparatus designed to cause the earth to break under its own weight, which is shown in fig.1 and consisted of a frame (1), a bracket-ring (2), in the base part of which there was a groove housing a ring (3) which revolved around the vertical axis of the apparatus, a cutting tool (4) equipped with a screw-thread, and a pan at the bottom of the apparatus. A piece of earth 230x230x350 mm was taken, and from this a mushroom-shaped test piece was cut out and placed in the instrument so that it hung with the upper flange of the "mushroom" resting on the fixed upper ring. The test consisted of cutting around the stem of the test-piece with a cutting tool, thus

Card 1/2

SOV/98-59-8-12/33

An Instrument for Determining the Cohesion of Earth Under Actual Conditions

forming a cylindrical recess in it. The diameter of this recess was constantly lowered in the course of the experiment by means of the screw-thread, until the lower part of the test-piece snapped under its own weight; dropped into the pan, and was weighed. The cohesion of earth is determined by the formula  $c = \frac{Q}{\pi R^2 x}$  (where  $Q$  is the

weight of the detached portion in kgs, and  $R$  is the radius of the cylindrical groove at breaking-point). The instrument was found to be suitable for testing the cohesion of various types of earth and was particularly convenient for practical use. The results of the tests were compared with those of experiments carried out on a laboratory breaking-machine, and the graph in fig.2 shows the very slight variation to be observed. There is 1 diagram and 1 graph.

Card 2/2

VLADIMIROV, V.M.

Correlation between ground shear strength and moisture.  
Izv.Sib.otd.AN SSSR no.11:28-31 '59. (MIRA 13:4)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR.  
(Soil mechanics)

VLADIMIROV, V.M.; SUTYAGIN, G.N.

Apparatus for determining soil adhesion by means of breaking un-  
der field conditions. Trudy Inst. gor. dela Sib. otd. AN SSSR  
no.3:319-323 '60. (MIRA 14:4)  
(Soil mechanics--Research)

VLADIMIROV, V.M.; SUTYAGIN, G.N.

Apparatus with a built-in recorder for determining the shear  
resistance of soil. Trudy Inst. gor. dela Sib. otd. AN SSSR  
no.3:324-328 '60. (MIRA 14:4)  
(Soil mechanics--Research)

VLADIMIROV, V.M.

Theory of the bucket wheel of bucket-wheel excavators. Izv.Sib.  
otd. AN SSSR no.2:17-24 ' 61. (MIRA 14:3)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR, Novosibirsk.  
(Excavating machinery)



FEDULOV, A.I., nauchnyy sotrudnik; VLADIMIROV, V.M., nauchnyy sotrudnik

By the force of caving. Izobr. i rats. no.6,14-15 Je '61. (MIRA 14:6)

1. Laboratoriya mekhanizatsii gornyykh rabot Instituta gornogo dela,  
Novosibirsk.

(Excavating machinery)

RODIONOV, G. V., doktor tekhn. nauk; VLADIMIROV, V. M., kand. tekhn. nauk

Principles of working soil by the caving method. Sbor, trud.  
MISI no.39:142-148 '61. (MIRA 16:4)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR.  
(Excavation)

KHUKHRYANSKIY, Pavel Nikolayevich, doktor tekhn. nauk, prof.;  
VLADIMIROV, V.M., inzh., vedushchiy red.; TOLMACHEV, V.B.,  
inzh., red.; LADONINA, L.V., tekhn. red.

[Using compressed wood in the manufacture of machine parts] Opyt  
primeneniia pressovannoi drevesiny dlia izgotovleniia detalei  
mashin. Moskva, Gos.nauchno-issl. in-t nauchn. i tekhn. infor-  
matsii, 1962. 94 p. (MIRA ~~1962~~)  
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